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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/766,696

01/27/2004

Bengt Ivarsson

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12/22/2004

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EXAMINER

MERLINO, AMANDA H

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,696

Applicant(s)

IVARSSON, BENGT

Examiner

Amanda H Merlino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 75-99 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 75-99 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/368,461.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/3/04 and 6/21/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 75-88 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,714,303 in view of applicant's admission of prior art. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach of a method of determining interaction of at least one species with a plurality of individual zones of a sensing surface, which method comprises: contacting the sensing surface with a fluid sample containing at least one surface interacting species, irradiating the surface with light so that the light is internally or externally reflected at the surface, imaging reflected light on a first photo-detector, each individual sensing surface zone corresponding to a respective area of the detector, repeatedly varying the incident angle at the sensing surface and/or the wavelength of the light over an angular and/or wavelength range, measuring the intensities of light imaged on different areas of the detector, at at least a number of incident angles and/or wavelengths to create a series

of images of the sensing surface, simultaneously measuring the momentary incident angle and/or wavelength of the scanned light on a second photo-detector to correlate each image to a specific incident angle and/or wavelength, and determining from the relationship between image intensity data and angular and/or wavelength data, interaction of the species with the individual sensing surface zones. The only difference is that the claims in U.S. Patent 6,714,303 do not claim obtaining at least fifty correlated images per second. At the time of the invention, it would have been obvious to one of ordinary skill in the art to obtain at least fifty correlated images per second since applicant teaches that it is well known in the art to use frame-rates of 50-60 Hz which would allow 50-60 intensity and angle data points in one second. (page 35; lines 14-17). This would allow for a faster image detection system.

Claims 89-99 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,714,303 in view of applicant's admission of prior art. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach of an analytical system comprising: a sensor unit having a sensing surface with a number of individual zones, means for illuminating the sensing surface with a collimated beam of light, means for imaging reflected light from the illuminated sensing surface into an image plane, means for repeatedly varying scanning the light incident at the sensing surface over a range of incident angles and/or wavelengths, means for synchronize optical detection of images in the image plane and incident angle and/or wavelength of light illuminating the sensing surface, and evaluation means for determining from the

relationship between detected intensity of different parts of the images and incident light angle and/or wavelength, the optical thickness of each zone of the sensing surface. The only difference is that the claims in U.S. Patent 6,714,303 do not claim obtaining at least fifty correlated images per second. At the time of the invention, it would have been obvious to one of ordinary skill in the art to obtain at least fifty correlated images per second since applicant teaches that it is well known in the art to use frame-rates of 50-60 Hz which would allow 50-60 intensity and angle data points in one second. (page 35; lines 14-17). This would allow for a faster image detection system.

Allowable Subject Matter

Claims 75-99 would be allowable upon the filing of a terminal disclaimer to overcome the obviousness double patenting rejection.

As to claims 75-88, the prior of record, taken alone or in combination, fails to disclose or render obvious a method for determining interaction of at least one species with a plurality of individual zones of a sensing surface by repeatedly varying the incident angle and/or wavelength of the light and **simultaneously** measuring the intensities of light reflected from the sensing surface and the momentary incident angle and/or wavelength of the incident light to correlate each image to a specific incident angle and/or wavelength, in combination with the rest of the limitations of claim 75.

As to claims 89-99, the prior of record, taken alone or in combination, fails to disclose or render obvious an analytical system comprising means for repeatedly varying the incident angle and/or wavelength of the light and means for **synchronized**

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optical detection of images in the image plane and incident angle and/or wavelength of light illuminating the sensing surface, in combination with the rest of the limitations of claim 89.

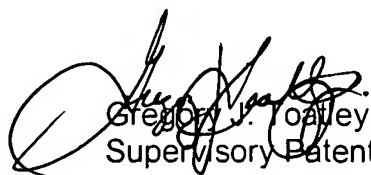
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda H Merlino whose telephone number is 571-272-2421. The examiner can normally be reached on Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda H Merlino *ah*
Patent Examiner
Art Unit 2877
December 16, 2004


Gregory J. Toatley, Jr.
Supervisory Patent Examiner
16 Dec 04